

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To: Stephen S. Ford, and all of  
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# PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
(day/month/year)

10 JAN 2008

Applicant's or agent's file reference

5087-202

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/US 06/09572

International filing date (day/month/year)

16 March 2006 (16.03.2006)

Priority date (day/month/year)

23 June 2005 (23.06.2005)

International Patent Classification (IPC) or both national classification and IPC

IPC(8) - G06F 9/46 (2007.01)

USPC - 718/104

Applicant

Cypress Semiconductor Corporation

1. This opinion contains indications relating to the following items.

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220

Name and mailing address of the ISA/US  
Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450, Alexandria, Virginia 22313-1450  
Facsimile No. 571-273-3201

Date of completion of this opinion

18 May 2007 (18.05.2007)

Authorized officer:

Lee W. Young

PCT Helpdesk: 571-272-4300  
PCT OSP: 571-272-1774

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No

PCT/US 06/09572

Box No. 1 Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed  
☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing  
☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper  
☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed  
☐ filed together with the international application in electronic form  
☐ furnished subsequently to this Authority for the purposes of search

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished

4. Additional comments

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

|                               |        |      |     |
|-------------------------------|--------|------|-----|
| Novelty (N)                   | Claims | None | YES |
|                               | Claims | 1-20 | NO  |
| Inventive step (IS)           | Claims | None | YES |
|                               | Claims | 1-20 | NO  |
| Industrial applicability (IA) | Claims | 1-20 | YES |
|                               | Claims | None | NO  |

**2. Citations and explanations:**

Claims 1-20 lack novelty under PCT Article 33(2) as being anticipated by US 2002/0035701 A1 to Casebolt et al. (hereinafter Casebolt).

As per claim 1, Casebolt discloses a wakeup system for generating a signal to wake a device (mouse 107) from a sleep state when an operator touches the device, the system comprising: a conductive strip (145, FIG. 6) that is positioned in an area of the device touched by an operator using the device, a voltage source (batteries 3, FIG. 1), a connection to the conductive strip, the strip forming a capacitor (183), the capacitance of which is increased when a user touches the device (touch sensor 181, para. [0094]); a switch (130) having two positions, one of which connects the capacitor to the voltage source and the second of which connects the capacitor to ground, whereby the capacitor is alternately charged and discharged (para. [0097]-[0098]); a detector for determining when the capacitor reaches a pre-set charge and when the capacitor is fully discharged (microprocessor P, FIG. 1); a control circuit responsive to the detector for cyclically changing the position of the switch, a change being made whenever when the capacitor reaches the pre-set charge and when the capacitor is fully discharged; a counter for counting the number of cycles of the switch in a pre-established period of time (para. [0102]); and a circuit for generating the wake signal (wake in P, FIG. 1) if the number of cycles is below a pre-established number during the pre-established period of time (when the count related value (TouchVal) falls below a predetermined threshold count value, para. [0103]).

As per claim 2, Casebolt discloses the wakeup system wherein the device is battery operated (by battery 3, FIG. 1).

As per claims 3 and 13, Casebolt discloses the wakeup system wherein the device is a battery-operated (battery 3, FIG. 1) mouse (see abstract, 107).

As per claims 4 and 14, Casebolt discloses the wakeup system wherein the device is a mouse (107, FIG. 6) having a casing (109, FIG. 6) and the conductive strip (145, FIG. 6) is positioned inside the casing.

As per claims 5 and 15, Casebolt discloses the wakeup system wherein the casing is made of plastic (para. [0057]).

As per claim 6, Casebolt discloses the wakeup system wherein the device is a computer mouse (abstract, 107, FIG. 6) and the conductive strip (145) is located on the side of the mouse (see FIG. 6 and detail in FIG. 10).

As per claims 7 and 17, Casebolt discloses the wakeup system including a plurality of conductive strips forming the capacitor (see detail of capacitor 145 in FIG. 10).

As per claim 8, Casebolt discloses the wakeup system wherein the preset charge is a charge that generates a voltage of three volts (by a three volt battery in FIG. 1, part 3).

As per claim 9, Casebolt discloses the wakeup system wherein the control circuit includes a clock (FIG. 1, para. [0068]), a counter (para. [0103]) and a state machine (para. [0014]).

As per claims 10, 16 and 18, Casebolt discloses the wakeup system wherein the device (107) comprises a computer mouse (abstract, 107, FIG. 6) that has a casing (109) made of plastic, which is a non-conductive material (para. [0057]) and wherein the conductive strip (145) is located on the inside of the casing (FIG. 6), forming a capacitor (183).

As per claim 11, Casebolt discloses a method of generating a wakeup signal for a low power device (mouse 107) comprising the steps of: changing the value of capacitance of a capacitor (183) from a relatively low value to a relatively high value when an operator touches the device (para. [0094]), periodically measuring the value of the capacitor (para. [0097]-[0098]), generating a wakeup signal if the device if the capacitor has a relatively high value (para. [0074]).

As per claim 12, Casebolt discloses the wakeup method, wherein the device is a battery (3) operated wireless computer mouse (107), which goes into a sleep state when not moved for a particular period of time (para. [0005]).

---see continuation page---

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US 06/09572

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Box No. V.2 Citations and Explanations:

As per claim 19, Casebolt discloses a wakeup system for generating a signal to wake a device (mouse 107) from a sleep state when an operator touches the device (touch sensor 181), the system comprising: conductive means (145) forming a capacitor (183), the conductive means being positioned so that the capacitance of the conductive means is increased from a relatively low value to a relatively high value when an operator touches the device (para. [0094]), measuring means for determining the value of the capacitor (i.e. the counter), circuit means (P, FIG. 1) responsive to the measuring means for generating the wake signal if the capacitor has a relatively high value (see FIG. 8 for flow chart when Wake signal is generated and FIG. 1 where a Wake signal is shown in the P)

As per claim 20, Casebolt discloses the wakeup system wherein the device is a battery operated (battery 3) wireless mouse (107) having a casing (109) and the conductive means (145) positioned inside the casing means (see FIG. 6) at a position on the casing where an operator naturally touches the mouse when using the mouse.

Claims 1-20 have industrial applicability as defined by PCT Article 33(4) because the subject matter can be made or used in industry.

## NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed

**The following examples illustrate the manner in which amendments must be explained in the accompanying letter:**

- 1 [Where originally there were 48 claims and after amendment of some claims there are 51]:  
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers. Claims 30, 33 and 36 unchanged, new claims 49 to 51 added."
- 2 [Where originally there were 15 claims and after amendment of all claims there are 11]:  
"Claims 1 to 15 replaced by amended claims 1 to 11."
- 3 [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:  
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or  
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
- 4 [Where various kinds of amendments are made]:  
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

### "Statement under Article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)). The statement will be published with the international application and the amended claims.

**It must be in the language in which the international application is to be published.**

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

### Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments and any accompanying statement, under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the time of filing the amendments (and any statement) with the International Bureau, also file with the International Preliminary Examining Authority a copy of such amendments (and of any statement) and, where required, a translation of such amendments for the procedure before that Authority (see Rules 55.3(a) and 62.2, first sentence). For further information, see the Notes to the demand form (PCT/IPEA/401).

If a demand for international preliminary examination is made, the written opinion of the International Searching Authority will, except in certain cases where the International Preliminary Examining Authority did not act as International Searching Authority and where it has notified the International Bureau under Rule 66.1bis(b), be considered to be a written opinion of the International Preliminary Examining Authority. If a demand is made, the applicant may submit to the International Preliminary Examining Authority a reply to the written opinion together, where appropriate, with amendments before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later (Rule 43bis.1(c)).

### Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see the *PCT Applicant's Guide*, Volume II.